

ABSTRACT

Dendrons and dendrimers are prepared by synthetic procedures under microwaves starting from heterocyclic substructures of C2 and C4 substituted iminoethers or from their boronic, sulfonic and phosphoric derivatives, or from their N-substituted derivatives, cyclic and acyclics, their products of hydrolysis or the transformations of them in other pentagonal nitrogenated heterocycles with incorporation in some cases, of structural units of chromogenic or fluorogenic glucuronides in their cavities or in the dendrimeric surface, in dependence of the functionality of the outlying groups.

Starting from different reactions of the iminoethers with carboxylic acids, anhydrides, esters, bases, aldehydes, alkyl halides, amines, isocyanates, aromatic thiols, by pyrolysis or hydrolysis, in sequences of selected reactions, alternated and iteratives, with the use of procedures and non classic methods of synthesis under microwaves at power between 30 and 300 Watt at 2450 MHz, to achieve the formation of basic substructures for the construction of dendrons, arms or ramifications of dendritic structures of different generations, from G0 to G4, by a convergent strategy, in presence or absence of solvents and/or polymeric or mineral solid supports.